## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior version, and listings, of claims in the application:

- 1. (Original) A method of culturing an oocyte *in vitro*, comprising incubating said oocyte in a hypertonic medium having an osmolarity greater than 300 mosm.
- 2. (Original) The method of claim 1, wherein the osmolarity of said medium is greater than 320 mosm.
- 3. (Original) The method of claim 2, wherein the osmolarity of said medium is greater than 340 mosm.
- 4. (Original) The method of claim 3, wherein the osmolartiy of said medium is greater than 360 mosm.
- 5. (Original) The method of claim 1, wherein said medium comprises a sugar selected from the group consisting of sucrose, trehalose, fructose, dextran, and raffinose.
- 6. (Original) A method of culturing an embryo *in vitro* comprising incubating said embryo in a hypertonic medium having an osmolarity greater than 300 mosm.

7.	(Original) The method of claim 6, wherein the osmolarity of said medium
is greater than	a 320 mosm.

- 8. (Cancelled)
- 9. (Cancelled)
- 10. (Original) The method of claim 6, wherein said medium comprises a sugar selected from the group consisting of sucrose, trehalose, fructose, dextran, and raffinose.

## 11-13. (Cancelled)

- 14. (New) The method of claim 1, wherein prior to said culturing said oocyte is treated by microinjecting into the cytoplasm of said oocyte a protective agent which (i) comprises a sugar, and (ii) is substantially non-permeating with respect to mammalian cell membranes.
- 15. (New) The method of claim 14, wherein said protective agent comprises at least one sugar selected from the group consisting of sucrose, trehalose, fructose, dextran,

and raffinose.

- 16. (New) The method of claim 14, wherein said protective agent comprises at least one sugar selected from the group consisting of glucose, sorbitol, mannitol, lactose, maltose, and stachyose.
- 17. (New) The method of claim 14, wherein said protective agent comprises at least one sugar with a glass transition temperature greater than -50°C.
- 18. (New) The method of claim 17, wherein said protective agent comprises at least one sugar with a glass transition temperature greater than -30°C.
- 19. (New) The method of claim 14, wherein said protective agent comprises at least one sugar with a molecular weight greater than 120 daltons.
- 20. (New) The method of claim 14, wherein said protective agent comprises a glycolipid or a glycoprotein that comprises at least one sugar moiety derived from a sugar with a glass transition temperature greater than -50°C.
  - 21. (New) The method of claim 14, wherein the cytoplasmic concentration of

said sugar is less than or equal to about 1.0 M following microinjection.

- 22. (New) The method of claim 14, wherein the cytoplasmic concentration of said sugar is less than or equal to about 0.2 M following microinjection.
- 23. (New) The method of claim 6, wherein prior to said culturing said embryo is treated by microinjecting into the cytoplasm of said embryo a protective agent which (i) comprises a sugar, and (ii) is substantially non-permeating with respect to mammalian cell membranes.
- 24. (New) The method of claim 23, wherein said protective agent comprises at least one sugar selected from the group consisting of sucrose, trehalose, fructose, dextran, and raffinose.
- 25. (New) The method of claim 23, wherein said protective agent comprises at least one sugar selected from the group consisting of glucose, sorbitol, mannitol, lactose, maltose, and stachyose.
- 26. (New) The method of claim 23, wherein said protective agent comprises at least one sugar with a glass transition temperature greater than -50°C.

- 27. (New) The method of claim 23, wherein said protective agent comprises at least one sugar with a glass transition temperature greater than -30°C.
- 28. (New) The method of claim 23, wherein said protective agent comprises at least one sugar with a molecular weight greater than 120 daltons.
- 29. (New) The method of claim 23, wherein said protective agent comprises a glycolipid or a glycoprotein that comprises at least one sugar moiety derived from a sugar with a glass transition temperature greater than -50°C.
- 30. (New) The method of claim 23, wherein the cytoplasmic concentration of said sugar is less than or equal to about 1.0 M following microinjection.
- 31. (New) The method of claim 23, wherein the cytoplasmic concentration of said sugar is less than or equal to about 0.2 M following microinjection.